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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,980	12/12/2000	Masato Muraki	862.C2072	3339

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EXAMINER

WELLS, NIKITA

ART UNIT PAPER NUMBER

2881

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/733,980

Applicant(s)

MURAKI ET AL.

Examiner

Nikita Wells

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe et al.  
(5,863,682).

With respect to claims 1-8, Abe et al. disclose (Figs. 5 and 12; Abstract; Claim 1; Col. 3, lines 22-38; Col. 5, lines 32-57; Col. 12, lines 2-15; Col. 14, lines 19-32; Col. 15, lines 8-10; and Col. 39, lines 4-10) a charged-particle beam exposure apparatus for exposing a member (11) to be exposed to a charged particle beam with a pattern, comprising: storage means (36)(see Col. 12, lines 2-15) for storing a plurality of data for controlling a dosage of the charged particle beam in accordance with an irradiation position of the charged particle beam on the member (11) to be exposed; selection means (see Col. 39, lines 4-10) for selecting any one of the plurality of data stored in the storage means (36); and exposure means for controlling the dosage of the charged particle beam for each irradiation position on the basis of the data selected by the selection means, thereby exposing the member to be exposed with the pattern, wherein the control data includes correction data for correcting influence of a proximity effect on reference dose data.

With respect to claims 9-23, Abe et al. disclose (Figs. 5 and 12; Abstract; Claim 1; Col. 5, lines 32-57; Col. 12, lines 2-15; Col. 14, lines 19-32; Col. 15, lines 8-10; and Col. 39, lines 4-10) a control data determination method comprising: the step of generating reference dose data for

each irradiation position of a charged particle beam for exposing a member to be exposed with a reference pattern (see Col. 5, lines 32-57); the generation step of generating a plurality of control data for respective irradiation positions in accordance with conditions of the member to be exposed; the storage step of storing in a memory (see Col. 12, lines 2-15) the plurality of generated control data for the respective irradiation positions; the selection step of selecting (see Col. 39, lines 4-10) any one of the plurality of control data for the respective irradiation positions that are stored in the memory; the exposure step of performing proximity effect correction for the reference dose data on the basis of the selected control data, thereby exposing the member to be exposed with a pattern; the determination step (see Col. 3, lines 22-38) of evaluating the exposed pattern to determine whether the one selected control data is optimal data for controlling the reference dose data; and the control data determination step of determining optimal control data for controlling the reference dose data in accordance with a determination result, wherein the selection step comprises selecting control data other than the one selected control data until optimal control data is determined based on the determination result, and the determination step comprises evaluating the exposed pattern based on the selected control data.

### *Conclusion*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Veneklasen et al. (5,847,959) disclose a method and apparatus for correction of proximity effects in an electron beam pattern generating system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (703) 305-0416. The examiner can normally be reached 8:30 AM - 5:00 PM.

Art Unit: 2881

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (703) 308-4116. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Nikita Wells

Examiner, Art Unit 2881

December 28, 2002